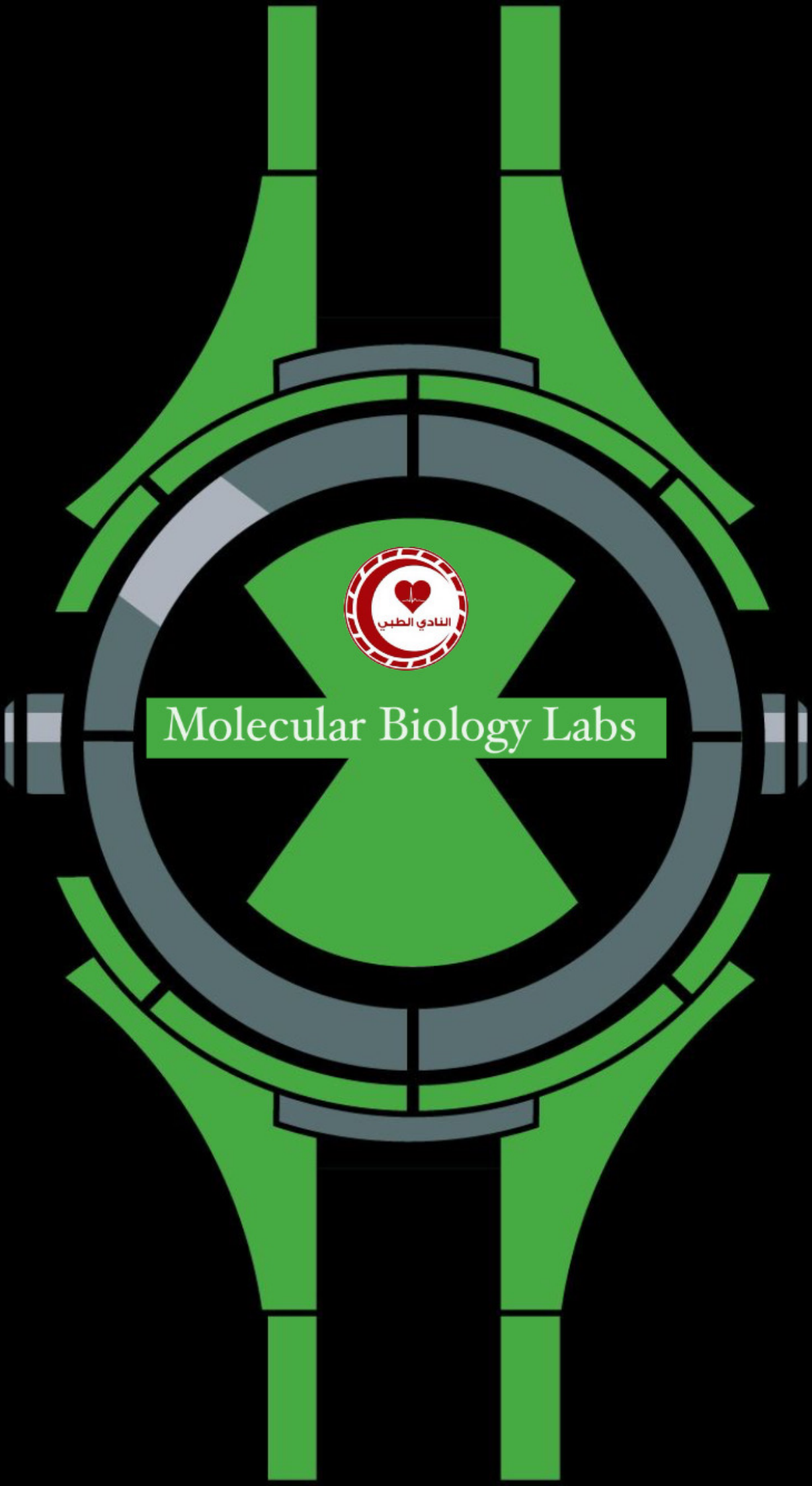
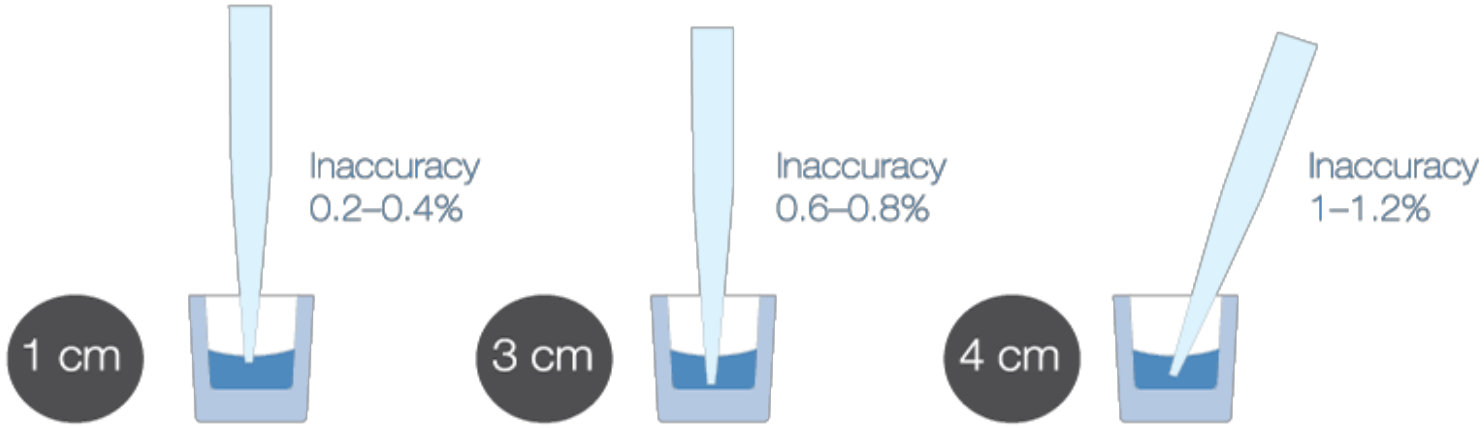

النادي الطبي
Molecular Biology Labs

حتى يكون الدقة اكتر لازم يكون بزاوية 90 و على بعد 1cm من السائل حتى ما يسحب اكترمن الحجم

Tip Immersion Depth and Angle



1. Pipette held vertically, tip immersed about 1 cm into the liquid.
2. Pipette held vertically, tip immersed about 3 cm into the liquid.
3. Pipette held at a 30–40° angle, tip immersed about 3–4 cm into the liquid.

Effects of immersing the tip too deeply and tilting the pipette are greater with small sample volumes, e.g., using 1–10 µl pipette.

https://www.youtube.com/watch?v=nPjt1ZUNkFQ&ab_channel=PromegaCorporation

هاد السلايد مو داخل بس لأني كتبت المعلومة بالعكس ف حبيت أصححها ❤️

***الأهم

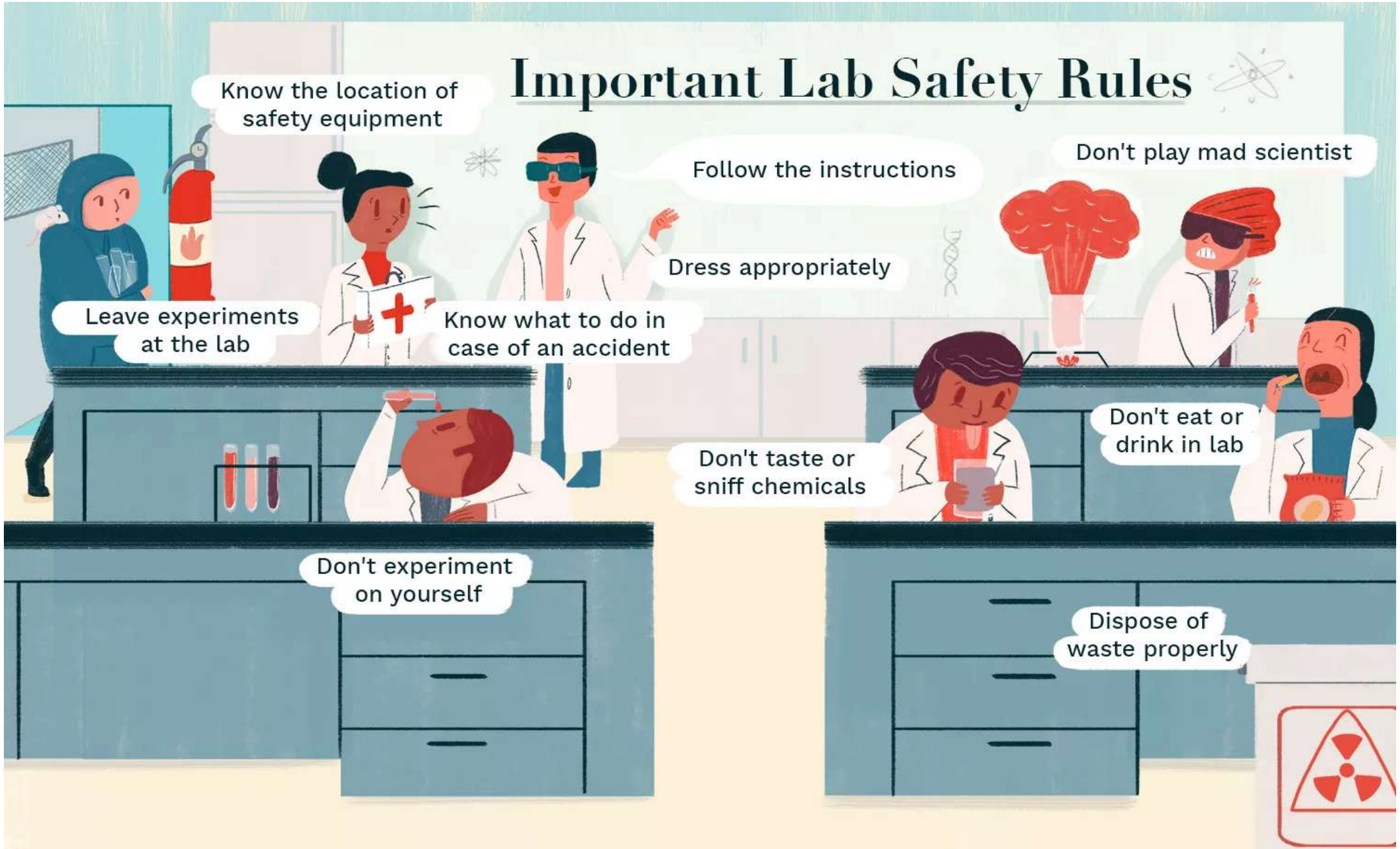
ASK FOR ASSISTANCE

KEEP AREA CLEAN

DRESS PROPERLY

DO NOT EAT

WASH HANDS


Important Lab Safety Rules
Know the location of safety equipment
Follow the instructions
Don't play mad scientist
Dress appropriately
Leave experiments at the lab
Know what to do in case of an accident
Don't eat or drink in lab
Don't taste or sniff chemicals
Don't experiment on yourself
Dispose of waste properly

المهم الي تم التخطيط عليه بالهايلايت الباقي قراءة

Hazards

- Most hazards encountered fall into three main categories: 1 chemical, 2 biological, or 3 physical.
-
- Cleaning agents and disinfectants, drugs, anesthetic gases, solvents, paints, and compressed gases are examples of chemical hazards.

- Potential exposures to chemical hazards can occur both during use and with poor storage.

Hazards

- Biological hazards include potential exposures to allergens, infectious zoonotics (animal diseases transmissible to humans), and experimental agents such as viral vectors.
- Allergens, ubiquitous in animal research facilities, are one of the most important health hazards, yet they are frequently overlooked.

Hazards

- The final category contains the physical hazards associated with research facilities.
- The most obvious are slips and falls from working in wet locations and the ergonomic hazards of lifting, pushing, pulling, and repetitive tasks.
- Other physical hazards often unnoticed are electrical, mechanical, acoustic, or thermal in nature. Ignoring these can have potentially serious consequences.

Hazard Symbols

جايين بالامتحان *

General Warning

Biohazard

Explosive Hazard

Harmful Irritant

Poison/Toxic Material

Toxic Gas

Noise Sign

Corosive Material Hazard

High Voltage

Electrical Hazard

Laser Beam Hazard

Low Temperature Warning Symbol

ما رح تجيب بالامتحان هاي التفاصيل بس حكت مهم نقرأهم و نركز على الأشياء الي عليها هايلايت بس

General warning Hazards

Name of Symbol	Symbol	Indication
General Warning	 General Warning	Presence of possibly hazardous materials/environment
Health Hazard	 Health Hazard	Presence of chemical, physical, or biological factors with the potential to have a negative effect on our health

Biological Hazards

Name of Symbol	Symbol	Indication
Biological Hazard		Presence of Biohazardous materials

Chemical Hazards

Name of Symbol	Symbol	Indication
Poison/ Poisonous Materials		Presence of toxic materials
Carcinogenic		Presence of carcinogenic materials
Corrosive Material Hazard		Presence of corrosive substances
Harmful Irritants		Presence of harmful chemicals causing irritations

Physical Hazards

Name of Symbol	Symbol	Indication
High Voltage		Supply of high-voltage electricity
Electric Hazard		Risk of getting electric shock. (The device might give mild to severe electric shock.)
Cryogenic Hazard		Low-temperature zone
Flammable Material		Presence of combustible materials (a substance that can easily burn)

Physical Hazards

Oxidizing Material		Presence of oxidizing chemicals
Explosive Material		Presence of explosive and/or self-reactive substances
Hot Surface		Risk of burning if you touch with naked hands

Physical Hazards

Ionizing Radiation (Radiation) Hazard		Presence of radioactive materials emitting ionizing radiation or the presence of electromagnetic waves having the capacity to ionize an atom
Non-ionizing Radiation Hazard		Presence of electromagnetic waves that don't have ionizing capacity but have the capacity to excite electrons
UV Radiation Hazard		Presence of UV light
Laser Hazard		Presence of laser radiation
Glassware Hazard		Presence of broken glasses

Albumin

- Globular Proteins
- They are spherical or oval in shape.
- They are easily soluble.
- Examples are albumins, globulins and protamines.

Albumin

- Albumins: They are soluble in water and coagulated by heat.
- Human serum albumin has a molecular weight of 69,000. Other examples are lactalbumin of milk and egg albumin.

Albumin

- Low levels of albumin (hypoalbuminemia) can be caused by liver disease, kidney disease, malnutrition, infections, burns, or chronic inflammatory diseases. High levels of albumin (hyperalbuminemia) are less common but can occur due to dehydration or high protein intake.
- Overall, an albumin lab test is a useful diagnostic tool that helps healthcare providers assess a patient's liver and kidney function, nutritional status, and overall health.

ملاحظات على Lab 2

الدكتور ذكر انه لازم نكون عارفين النسب للسكر في الجدول و عارفين نطبق بالقانون

$$\text{نسبة glucose} = \frac{\text{Abs of Sample}}{\text{Abs of std}} \times \text{Conc of STD}$$

قيمة معلومة من السؤال

* مثل:

$S = 0,422$

$St = 0,199$

$$= \frac{0,422}{0,199} \times 100$$

$$= 212 \text{ mg/dl}$$